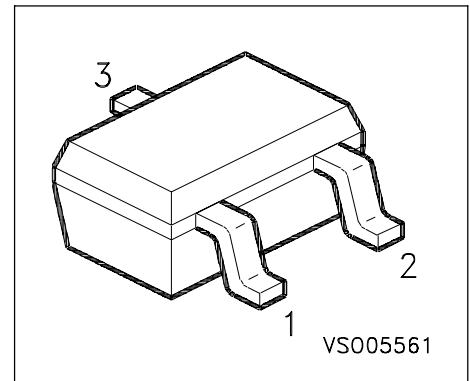


### Silicon Switching Diode

- For high speed switching applications



Type	Marking	Ordering Code	Pin Configuration			Package
BAS 16W	A6s	Q62702-A1050	1 = A		3 = C	SOT-323

#### Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	$V_R$	75	V
Peak reverse voltage	$V_{RM}$	85	
Forward current	$I_F$	250	mA
Surge forward current, $t = 1 \mu s$	$I_{FS}$	4.5	
Total Power dissipation $T_S \leq 119^\circ C$	$P_{tot}$	250	mW
Junction temperature	$T_j$	150	
Storage temperature	$T_{stg}$	- 65 ... + 150	

#### Thermal Resistance

Junction ambient <sup>1)</sup>	$R_{thJA}$	$\leq 260$	K/W
Junction - soldering point	$R_{thJS}$	$\leq 125$	

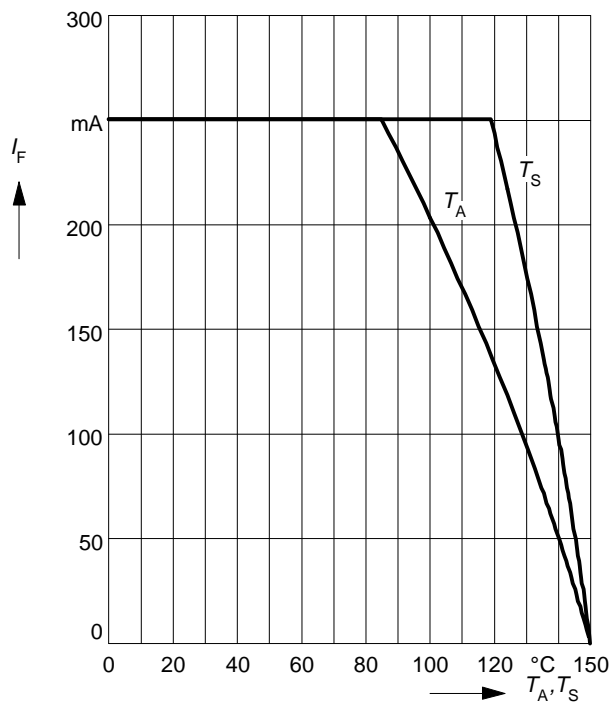
1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm<sup>2</sup> Cu

### Electrical Characteristics at $T_A=25^\circ\text{C}$ , unless otherwise specified

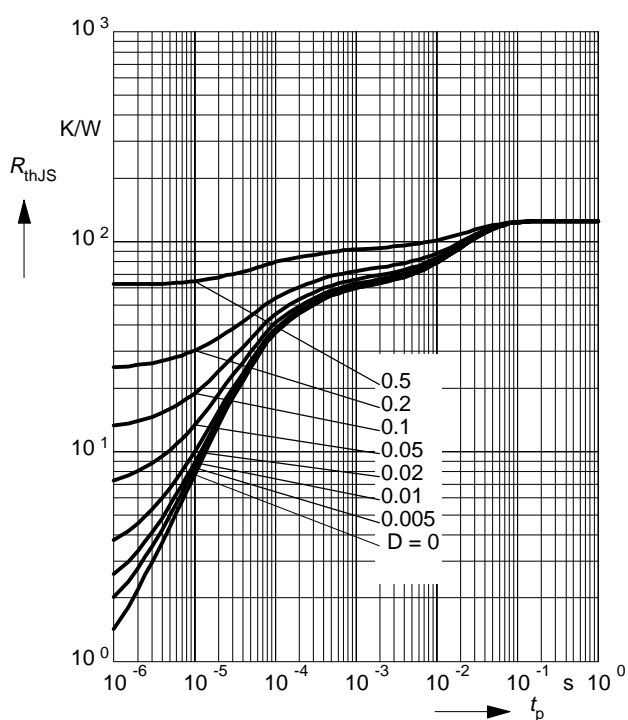
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 100\ \mu\text{A}$	$V_{(BR)}$	75	-	-	V
Forward voltage $I_F = 1\ \text{mA}$ $I_F = 10\ \text{mA}$ $I_F = 50\ \text{mA}$ $I_F = 150\ \text{mA}$	$V_F$	- - - -	- - - -	715 855 1000 1250	mV
Reverse current $V_R = 70\ \text{V}, T_A = 25\ ^\circ\text{C}$ $V_R = 25\ \text{V}, T_A = 150\ ^\circ\text{C}$ $V_R = 75\ \text{V}, T_A = 150\ ^\circ\text{C}$	$I_R$	- - -	- - -	1 30 50	$\mu\text{A}$
AC characteristics					
Diode capacitance $V_R = 0\ \text{V}, f = 20\ \text{MHz}$	$C_D$	-	-	2	pF
Reverse recovery time $I_F = 10\ \text{mA}, I_R = 10\ \text{mA}, R_L = 100\ \Omega$ $t_{rr}$ measured at 1 mA	$t_{rr}$	-	-	6	ns

## Forward current $I_F = f(T_A^*; T_S)$

\* Package mounted on epoxy

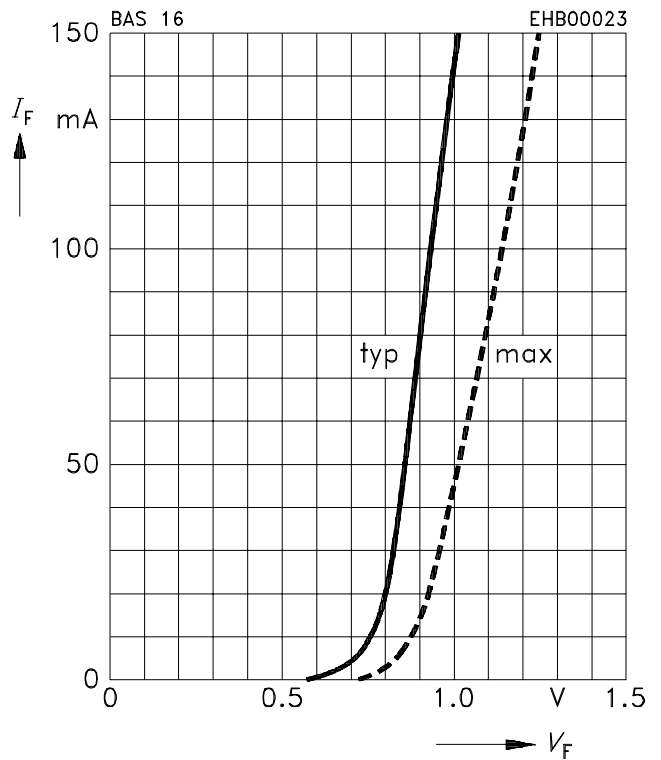


## Permissible Pulse Load $R_{thJS} = f(t_p)$

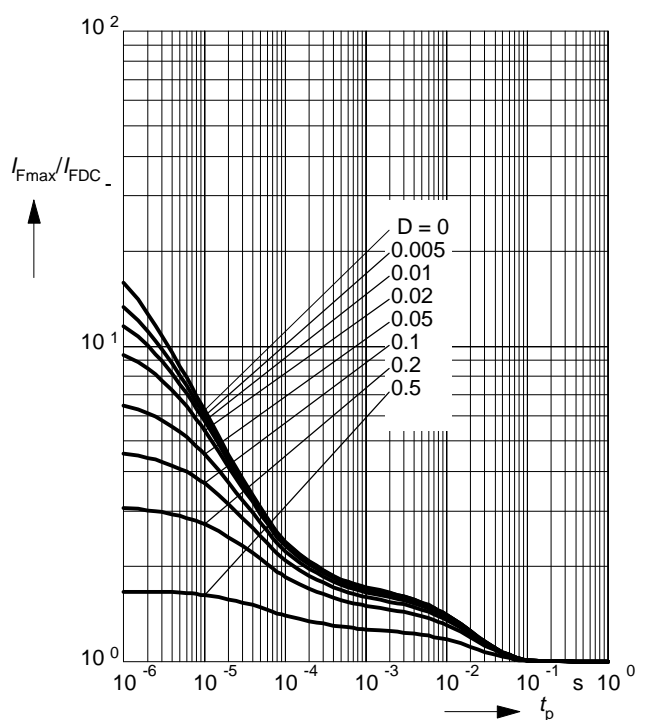


## Forward current $I_F = f(V_F)$

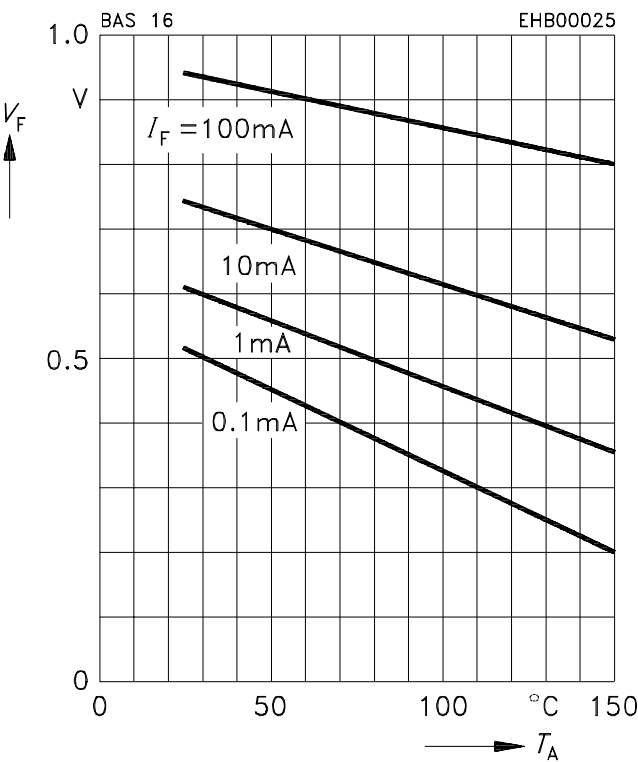
$T_A = 25^\circ\text{C}$



## Permissible Pulse Load $I_{Fmax}/I_{FDC} = f(t_p)$



Forward voltage  $V_F = f(T_A)$



Reverse current  $I_R = f(T_A)$

